EPIF Improvements

The Electronic Public File (EPIF) system is in need of an upgrade. This document will provide a brief summary of the EPIF system and list suggested improvements.

The system consists of 3 main components:

1) **The publicfile.iheartmedia.com server** – This is the central hub for the public file. This server allows station personnel to upload documents and performs the automation for pulling Public Affairs programming and PSAs from NexGen. All of the remote kiosks connect to this server to receive updates, both document and software related.
2) **The kiosk web interface** – Each kiosk can be interacted with via the locally hosted web interface. The site is written in PHP and JavaScript and allows users to view the contents of the station's public file. The kiosks are synchronized with the main server via PHP scripts that listen for update directives. The web site also contains PHP scripts that interface with the underlying OS to send information to the primary server (printer connectivity, network method used, last update, etc.)
3) **The kiosk operating system** – The Kiosk run a customized version of Windows XP Service Pack 2. The Windows registry and installation process was heavily modified so that installation could be automatic and so that the computer was secure from tampering. The installation was pre-loaded with common drivers to support printers and network cards.

The primary issue with the current system is that the Kiosk Operating System is severely outdated and won't run on newer machines. Drivers for newer hardware are not being written to be compatible with Service Pack 2.

Improvements to Kiosk OS

The most pressing need is for a new Operating System to be built. It is preferable for this OS to be created manually so that we can have full customization over its operation. A custom distribution of Linux would be ideal.

Requirements

- Must be secure – The kiosk needs to be secure from local and remote tampering.
- Must allow for updates to OS – originally, the XP OS was never intended to be upgraded. For the new OS, it would be desirable that the underlying Linux Kernel (or other base system) could be upgraded to maintain security patches and new improvements.
- Must have fully automated installation process – The OS needs to be loadable on to a CD or USB drive. Installation should require no other actions than inserting the CD or USB and booting the machine from the device.
- Buildable – The OS should be buildable from source materials. For example, a script could be included that will put together all of the constituent components and result in an installable OS ISO
- Must be able to connect to the internet
- Must be able to connect to wireless networks

- Must be able to connect via Dial-Up
- Must be able to connect to the iHeartMedia VPN
- Must have support for a large variety of printers – Printers are often connected to the Public File Kiosks to allow users to print out documents. It is preferable that a minimum amount of setup be required for the printers to be configured.
- Remotely Accessible – The kiosks need to be able to be remotely accessed (when online) so that diagnostics and troubleshooting can be performed.
- Must be able to run web software – The OS should be able to run PHP and MySQL
- Primary interface must be web browser – The OS should be configured so that on boot, only the website interface is visible. A browser (preferably Google Chrome) should be utilized in Kiosk mode.
- Clean loading/booting – When the kiosk is rebooted, the only thing visible should be an iHeartMedia logo with a loading message.

Improvements to the Kiosk Web Interface

The kiosk web interface is in need of some UI/UX upgrades.

- A newer, modern interface – Larger buttons and a cleaner layout should improve the user's overall experience. Forward-thinking implementation for Touch Screens.
- Upgraded version of PHP – for speed and security improvements
- Upgraded version of MySQL – again, for speed and security improvements
- Guided tour of kiosk operation
- Rotatable document viewing

Improvements for Public File Server

The public server is in need of a few UI changes, but on the whole is functioning without issue.